

Application No.: 09/961,143
Amendment Dated: October 21, 2003
Reply to Office Action of: July 21, 2003

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings of claims in the application:

Claim 1 (Currently Amended): An anisotropically conductive sheet, ~~containing~~
comprising:

conductive particles contained in an elastic polymeric substance, the particles
exhibiting magnetism in a state oriented in a thickness-wise direction of the sheet ~~in an elastic~~
~~polymeric substance, and~~

a lubricant or parting agent which is coated on the surfaces of the conductive
particles,

wherein ~~the a~~ durometer hardness of the elastic polymeric substance is 20 to 90, and a
~~lubricant or parting agent is coated on the surfaces of the conductive particles.~~

Claim 2 (Currently Amended): The anisotropically conductive sheet according to
Claim 1, wherein ~~the an~~ amount of the lubricant or parting agent coated on the surfaces of the
conductive particles is 10/Dn to 150/Dn parts by mass per 100 parts by mass of the
conductive particles, wherein Dn means the number average diameter (μm) of the conductive
particles.

Claim 3 (Currently Amended): The anisotropically conductive sheet according to
Claim 1 or 2, wherein the lubricant or parting agent coated on the surfaces of the conductive
particles ~~is that~~ comprises ~~containing~~ silicone oil.

Claim 4 (Original): The anisotropically conductive sheet according to Claim 3,
wherein the silicone oil contains fluorine atom(s) in its molecule.

Claim 5 (Original): The anisotropically conductive sheet according to Claim 1 or 2, wherein the lubricant or parting agent applied to the surfaces of the conductive particles is a fluorine-containing lubricant or parting agent.

Claim 6 (Original): The anisotropically conductive sheet according to Claim 1 or 2, which comprises a plurality of conductive path-forming parts each closely containing the conductive particles and extending in the thickness-wise direction of the sheet, and insulating part(s) for insulating these conductive path-forming parts mutually.

Claim 7 (Originally): The anisotropically conductive sheet according to Claim 4, which comprises a plurality of conductive path-forming parts each closely containing the conductive particles and extending in the thickness-wise direction of the sheet, and insulating part(s) for insulating these conductive path-forming parts mutually.

Claim 8 (Currently Amended): A process for producing an anisotropically conductive sheet, which comprises the steps of comprising:

coating the surfaces of conductive particles exhibiting magnetism with a lubricant or parting agent, to obtain coated particles,

dispersing forming a sheet-forming material layer with the conductive coated particles coated with the lubricant or parting agent dispersed in a liquid material capable of forming an
for the elastic polymeric substance, which will become an elastic polymeric substance by a
curing treatment, and forming a sheet-forming material layer,

applying a magnetic field to the sheet-forming material layer in the thickness-wise direction thereof, and

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subjecting the sheet-forming material layer to ~~the a~~ curing treatment, thereby
converting said liquid material into the elastic polymeric substance.

Claim 9 (Currently Amended): An adapter for inspection of circuit devices, comprising:

a circuit board for inspection on the surface of which a plurality of electrodes for inspection has been formed in accordance with a pattern corresponding to electrodes to be inspected of a circuit device to be inspected, and

the anisotropically conductive sheet according to any one of Claims 1, and 2 and 4 integrally provided on a surface of the circuit board for inspection.

Claim 10 (Currently Amended): An adapter for inspection of circuit devices, comprising:

a circuit board for inspection on the surface of which a plurality of electrodes for inspection has been formed in accordance with a pattern corresponding to electrodes to be inspected of a circuit device to be inspected, and

the anisotropically conductive sheet according to Claim 6 integrally provided on a surface of the circuit board for inspection.

Claim 11 (Currently Amended): An adapter for inspection of circuit devices, comprising:

a circuit board for inspection on the surface of which a plurality of electrodes for inspection has been formed in accordance with a pattern corresponding to electrodes to be inspected of a circuit device to be inspected, and

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the anisotropically conductive sheet according to Claim 7 integrally provided on a surface of the circuit board for inspection.

Claim 12 (Original): The adapter for inspection of circuit devices according to Claim 9, wherein at least a part of each of the electrodes for inspection in the circuit board for inspection is formed of a magnetic material.

Claim 13 (Currently Amended): The adapter for inspection of circuit devices according to Claim 10 ~~or 11~~, wherein at least a part of each of the electrodes for inspection in the circuit board for inspection is formed of a magnetic material.

Claim 14 (Currently Amended): An inspection apparatus for circuit devices, comprising:

a circuit board for inspection on the surface of which a plurality of electrodes for inspection are formed in accordance with a pattern corresponding to electrodes to be inspected of a circuit device to be inspected, and

the anisotropically conductive sheet according to any one of Claims 1; and 2 and 4 interposed between the circuit board for inspection and the circuit device.

Claim 15 (Currently Amended): An inspection apparatus for circuit devices, comprising:

a circuit board for inspection on the surface of which a plurality of electrodes for inspection are formed in accordance with a pattern corresponding to electrodes to be inspected of a circuit device to be inspected, and

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the anisotropically conductive sheet according to Claim 6 interposed between the circuit board for inspection and the circuit device.

Claim 16 (Currently Amended): An inspection apparatus for circuit devices, comprising:

a circuit board for inspection on the surface of which a plurality of electrodes for inspection are formed in accordance with a pattern corresponding to electrodes to be inspected of a circuit device to be inspected, and

the anisotropically conductive sheet according to Claim 7 interposed between the circuit board for inspection and the circuit device.

Claim 17 (Currently Amended): An electronic part-packaged structure, comprising:
a circuit board and an electronic part electrically connected to the circuit board through the anisotropically conductive sheet according to any one of Claims 1, and 2 and 4.

Claim 18 (Currently Amended): An electronic part-packaged structure, comprising:
a circuit board and an electronic part electrically connected to the circuit board through the anisotropically conductive sheet according to Claim 5.

Claim 19 (Currently Amended): An electronic part-packaged structure, comprising:
a circuit board and an electronic part electrically connected to the circuit board through the anisotropically conductive sheet according to Claim 6.

Claim 20 (Currently Amended): An electronic part-packaged structure, comprising:

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a circuit board and an electronic part electrically connected to the circuit board through the anisotropically conductive sheet according to Claim 7.

Claim 21 (New): An adapter for inspection of circuit devices, comprising:
a circuit board for inspection on the surface of which a plurality of electrodes for inspection has been formed in accordance with a pattern corresponding to electrodes to be inspected of a circuit device to be inspected, and
the anisotropically conductive sheet according to any one of Claim 4 integrally provided on a surface of the circuit board for inspection.

Claim 22 (New): The adapter for inspection of circuit devices according to Claim 21, wherein at least a part of each of the electrodes for inspection in the circuit board for inspection is formed of a magnetic material.

Claim 23 (New): The adapter for inspection of circuit devices according to Claim 11, wherein at least a part of each of the electrodes for inspection in the circuit board for inspection is formed of a magnetic material.

Claim 24 (New): An inspection apparatus for circuit devices, comprising:
a circuit board for inspection on the surface of which a plurality of electrodes for inspection are formed in accordance with a pattern corresponding to electrodes to be inspected of a circuit device to be inspected, and
the anisotropically conductive sheet according to any one of Claim 4 interposed between the circuit board for inspection and the circuit device.

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Claim 25 (New): An electronic part-packaged structure, comprising:
a circuit board and an electronic part electrically connected to the circuit board
through the anisotropically conductive sheet according to any one of Claim 4.

Claim 26 (New): The anisotropically conductive sheet according to Claim 1, wherein
said lubricant or parting agent is interposed between the conductive particles and the elastic
polymeric substance.

Claim 27 (New): The anisotropically conductive sheet according to Claim 26,
wherein the conductive particles and the elastic polymeric substance are prevented from
integrally adhering to each other.

Claim 28 (New): The anisotropically conductive sheet according to Claim 1, wherein
conductive paths are formed when the sheet is pressurized in the thickness-wise direction.

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BASIS FOR THE AMENDMENT

The claims have been amended to better conform to U.S. claim format and to remove improper multiple dependencies. The amendment of Claim 1 is further supported at page 13, lines 11-18. The amendment of Claim 3 is supported at page 20, line 16. The amendment of Claim 8 is supported, for example, by Example 1.

New Claims 21-28 have been added.

New Claim 21 is supported by Claim 9 as originally filed.

New Claim 22 is supported by Claim 12 as originally filed.

New Claim 23 is supported by Claim 13 as originally filed.

New Claim 24 is supported by Claim 14 as originally filed.

New Claim 25 is supported by Claim 17 as originally filed.

New Claims 26-27 are supported at page 25, lines 13-21.

New Claim 28 is supported at page 24, lines 10-14 and Example 1.

Figures 17 and 18 have been amended to include the label "Prior Art."

The abstract has been amended to better conform to accepted U.S. format.

No new matter is believed to have been added by entry of this amendment. Entry and favorable reconsideration are respectfully requested.

Upon entry of this amendment Claims 1-28 will now be active in this application.